

FIG. 1A

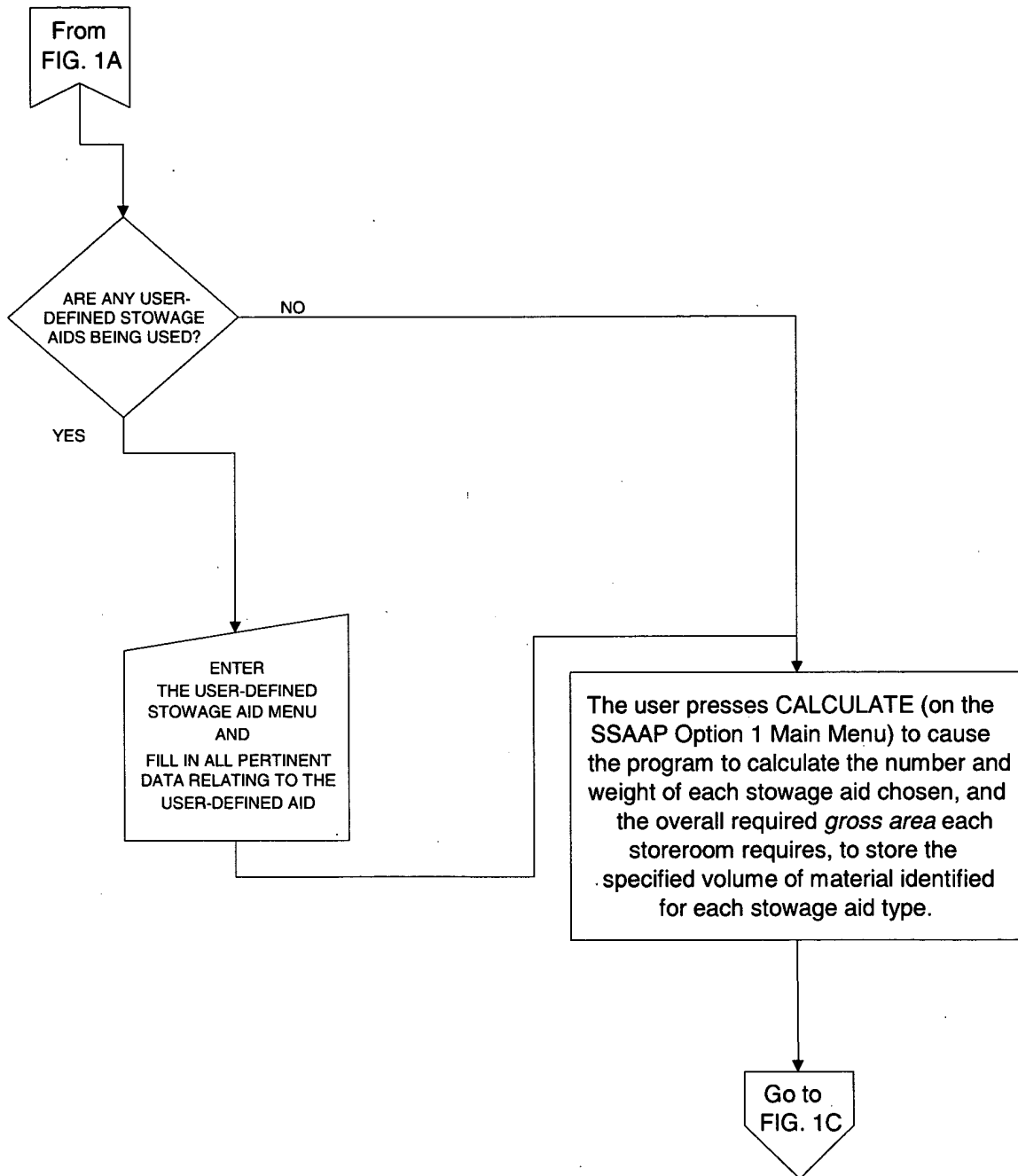


FIG. 1B

## Determine the Amount (Volume) of Material to Be Stored in Each Stowage Aid Type

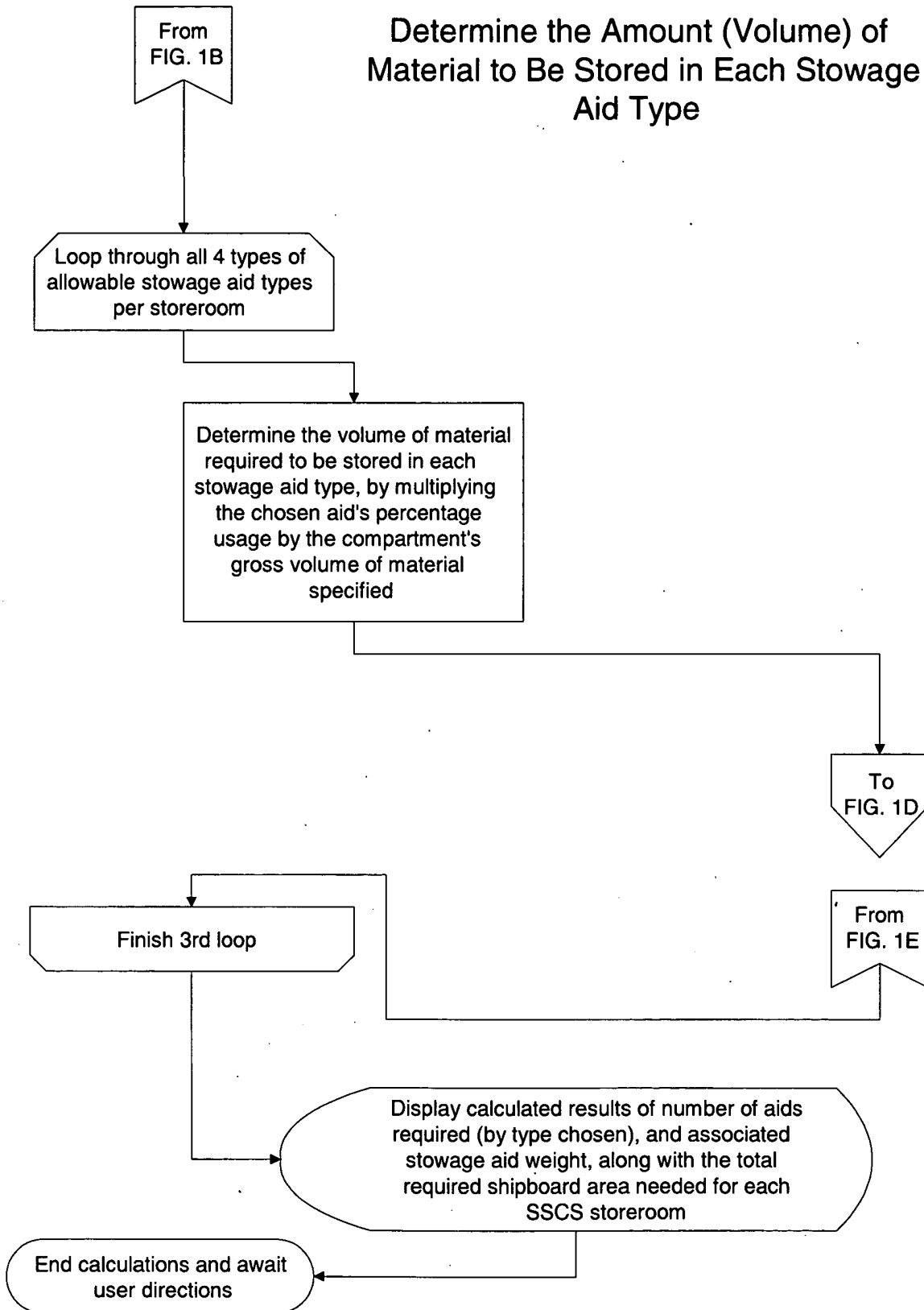
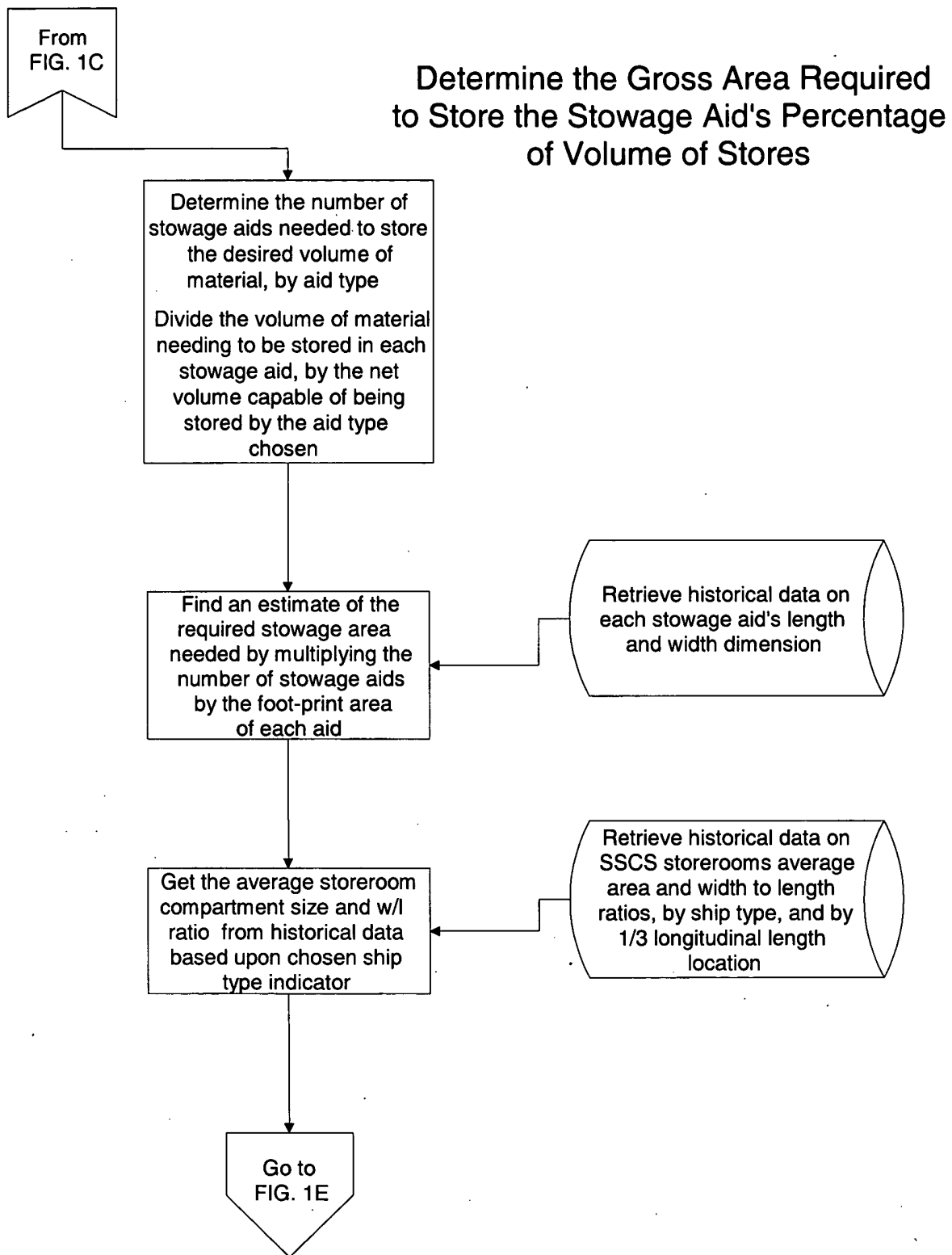


FIG. 1C



**FIG. 1D**

### Example of Storeroom Area Calculations:

Standard Historical Storeroom Area By Ship Type & Location	Standard Historical Storeroom Area By Ship Type & Location	Left Over Storeroom Area
---	---	--------------------------------

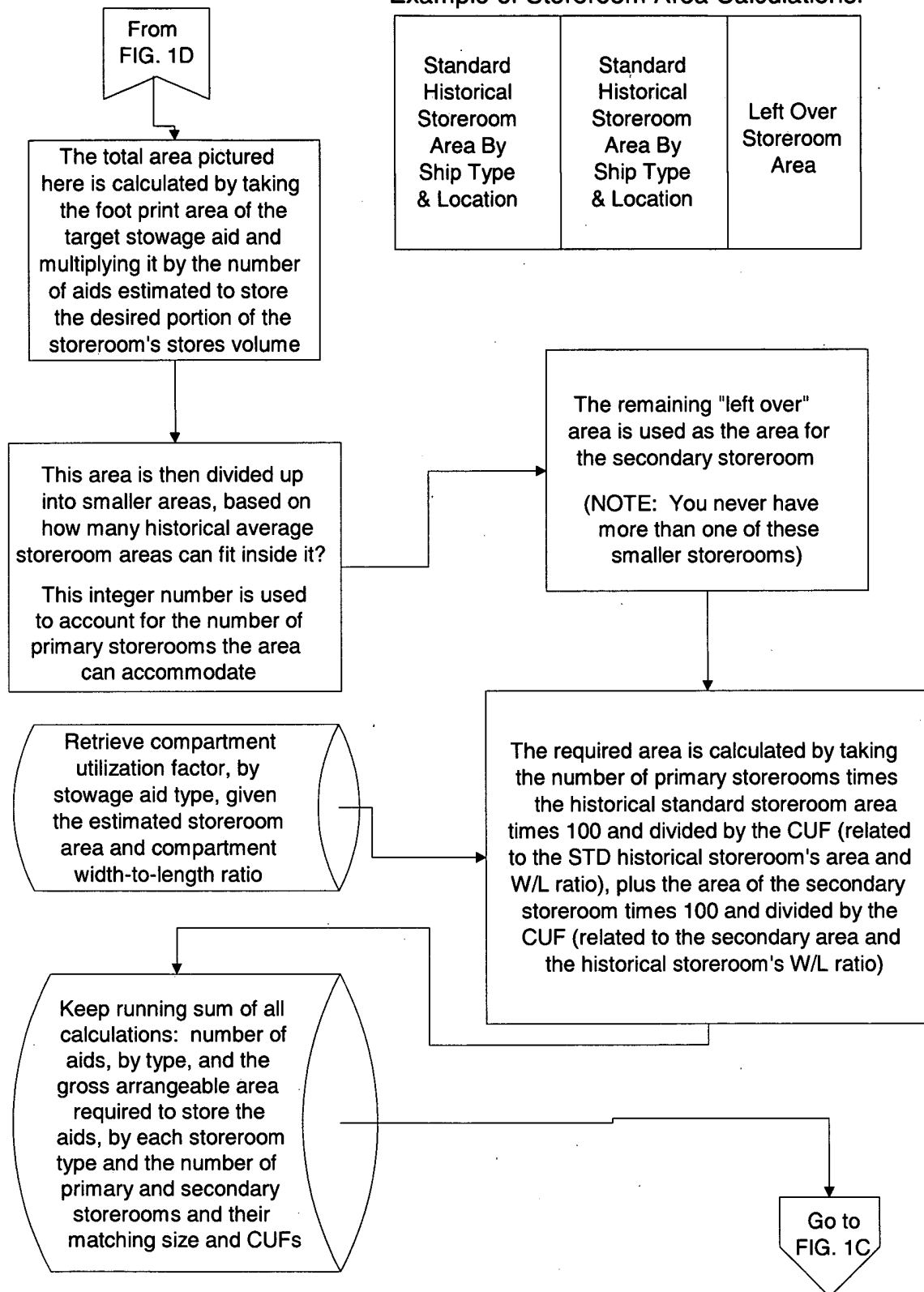


FIG. 1E

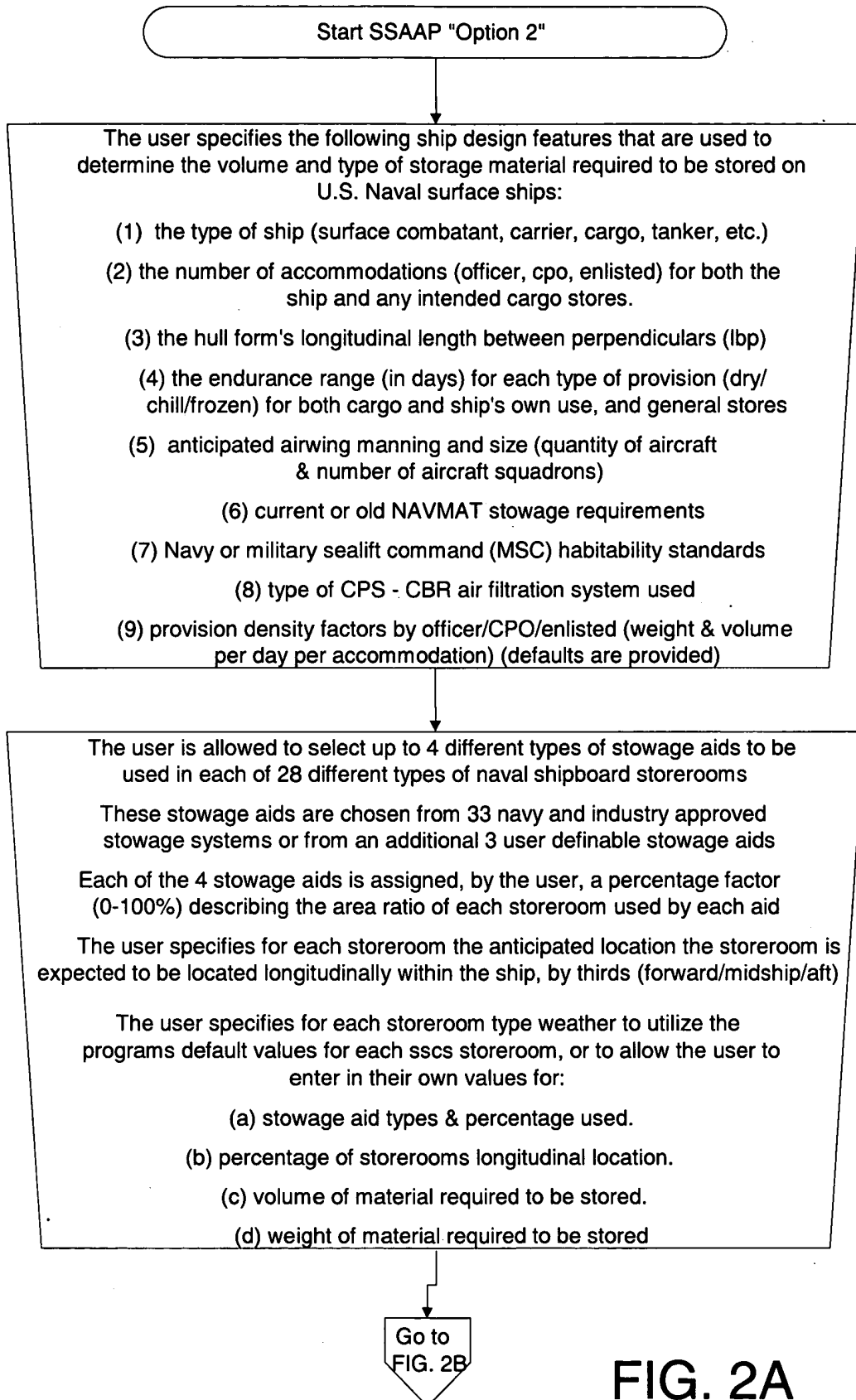


FIG. 2A

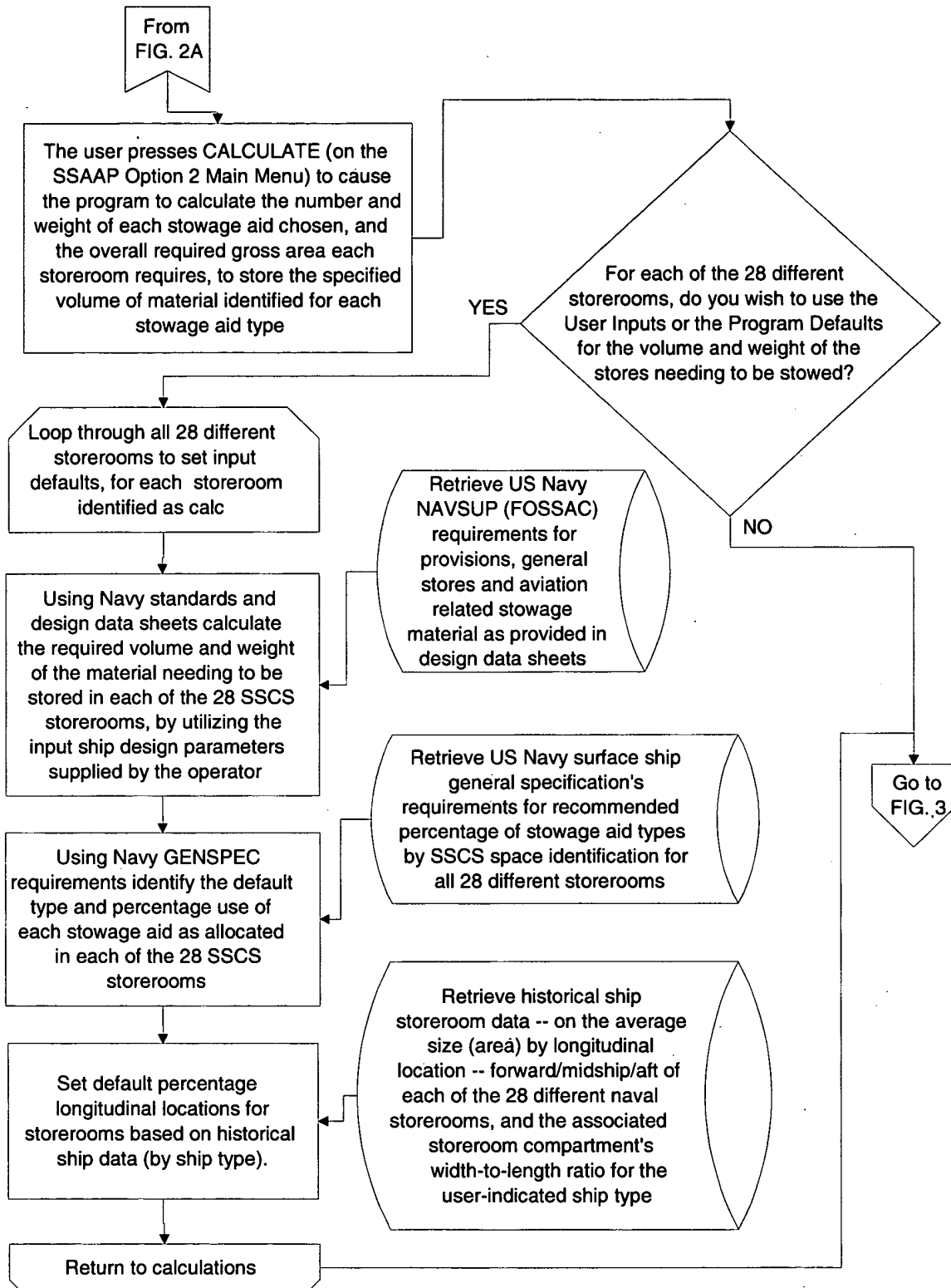
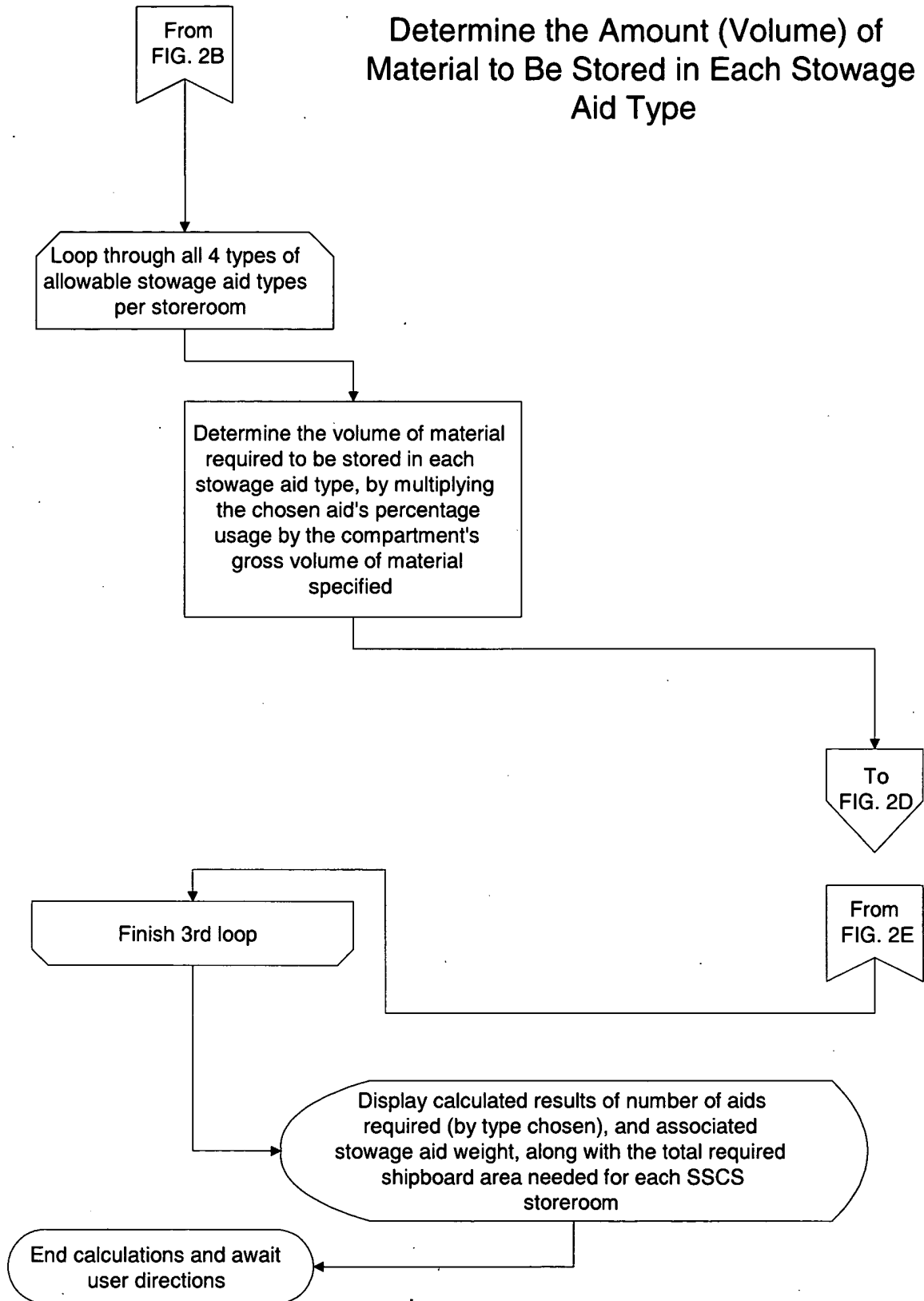
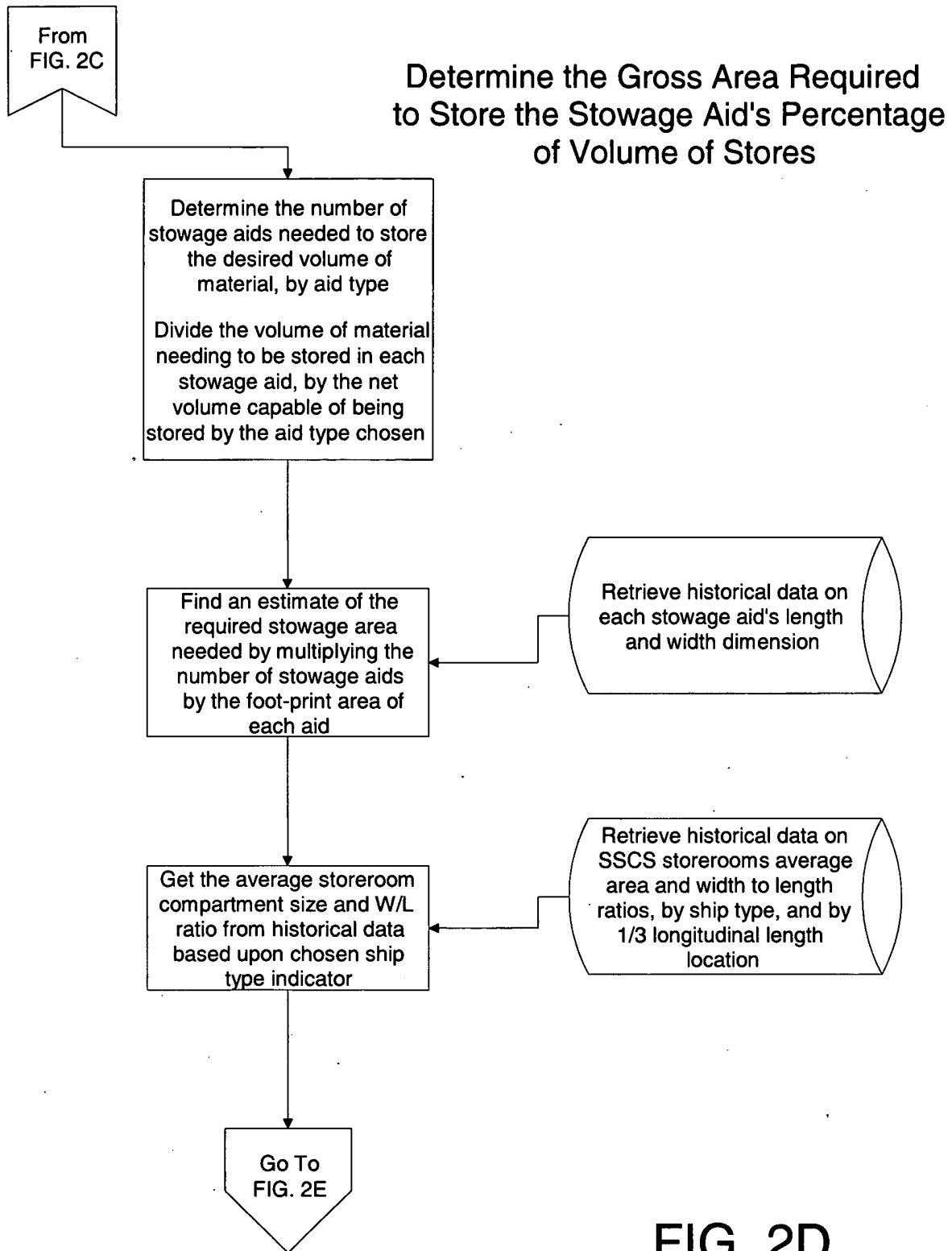


FIG. 2B



**FIG. 2C**





**FIG. 2D**

### Example of Storeroom Area Calculations:

Standard Historical Storeroom Area By Ship Type & Location	Standard Historical Storeroom Area By Ship Type & Location	Left Over Storeroom Area
---	---	--------------------------------

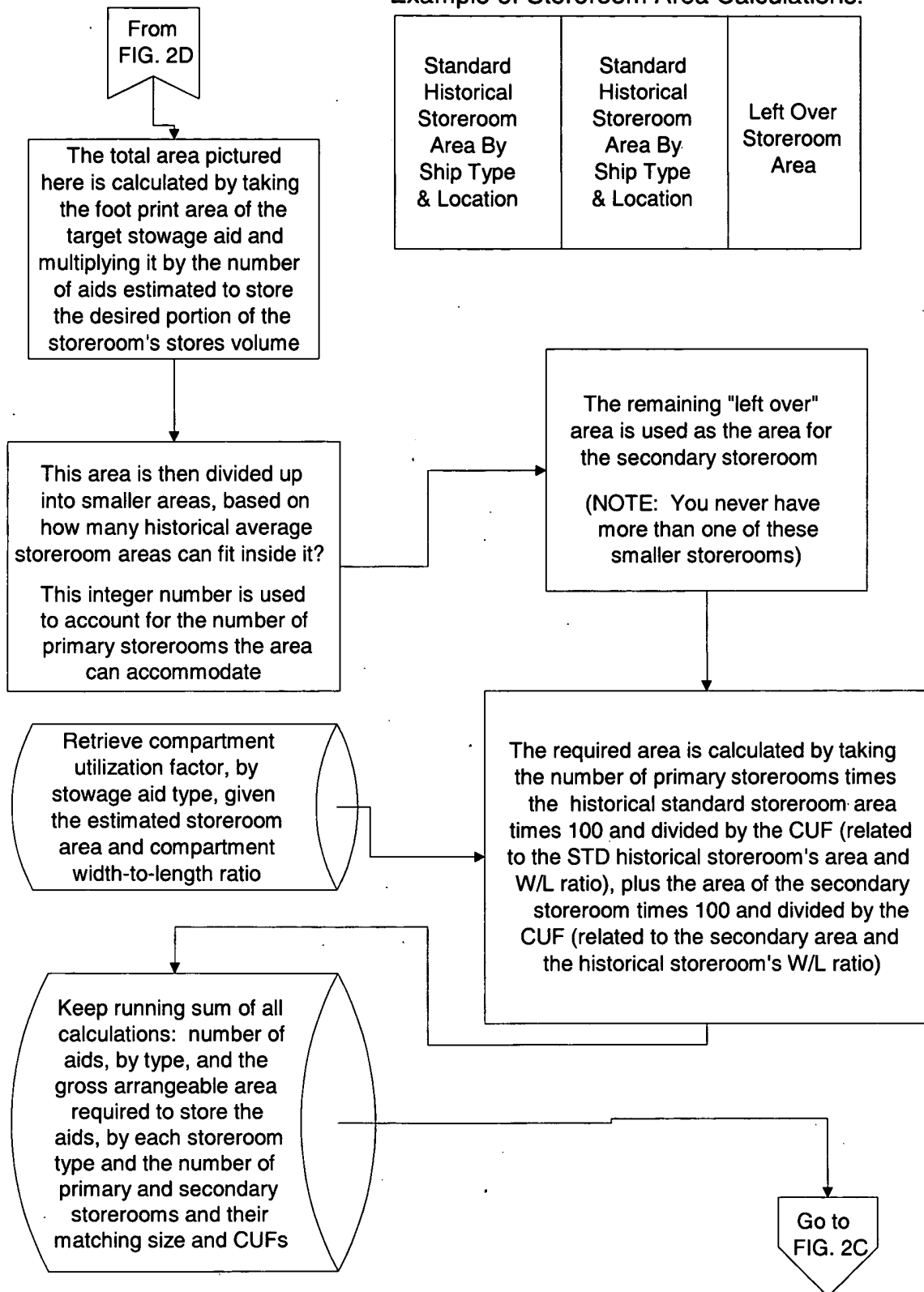


FIG. 2E

AREA GROUP	STOREROOM DESCRIPTION	LOAD WEIGHT GROUP
SSCS 1.3911	AVN CONSUMABLE STOWAGE	LOADS ARE IN SWBS F26
SSCS 1.3912	AVN CONSUMABLE ISSUE	LOADS ARE IN SWBS F26
SSCS 1.3922	AVN ELECTRONIC REPAIR PARTS	LOADS ARE IN SWBS F26
SSCS 1.3923	AVN ORDNANCE REPAIR PARTS	LOADS ARE IN SWBS F26
SSCS 1.394	FLIGHT CLOTHING STOWAGE	LOADS ARE IN SWBS F16
SSCS 1.397	AVIATION SQUADRON STOWAGE	LOADS ARE IN SWBS F16
SSCS 1.54103	CARGO DRY PROVISIONS	LOADS ARE IN SWBS F62
SSCS 1.54104	CARGO FLAM LIQUID NON-FUEL	LOADS ARE IN SWBS F64
SSCS 1.54107	CARGO DRY CONSUMABLES	LOADS ARE IN SWBS F62
SSCS 1.54112	CARGO REPAIR PARTS	LOADS ARE IN SWBS F62
SSCS 1.54121	CARGO DRY BULK STOWAGE	LOADS ARE IN SWBS F62
SSCS 1.54202	CARGO CHILL PROVISIONS	LOADS ARE IN SWBS F62
SSCS 1.54203	CARGO FROZEN PROVISIONS	LOADS ARE IN SWBS F62
SSCS 2.231	CHILL PROVISIONS STOWAGE	LOADS ARE IN SWBS F31
SSCS 2.232	FROZEN PROVISION STOWAGE	LOADS ARE IN SWBS F31
SSCS 2.233	DRY PROVISION STOWAGE	LOADS ARE IN SWBS F31
SSCS 2.34101	MEDICAL & DENTAL STOWAGE	LOADS ARE IN SWBS F31
SSCS 2.41002	CLOTHING & SMALL STRS ISSUE	LOADS ARE IN SWBS F31
SSCS 2.55	FOUL WEATHER GEAR STOWAGE	LOADS ARE IN SWBS F32
SSCS 2.62	CBR DEFENSE EQUIP STOWAGE	LOADS ARE IN SWBS F32
SSCS 3.7111	FLAMMABLE LIQUID NON-FUEL	LOADS ARE IN SWBS F32
SSCS 3.712	SPECIAL CLOTHING STOWAGE	LOADS ARE IN SWBS F31
SSCS 3.7131	SHIP CONSUMABLE STOWAGE	LOADS ARE IN SWBS F32
SSCS 3.7132	SHIP CONSUMABLE ISSUE	LOADS ARE IN SWBS F32
SSCS 3.714	SUPPLY DEPT STRMS (BULK)	LOADS ARE IN SWBS F32
SSCS 3.74	DECK DEPT STOWAGE	LOADS ARE IN SWBS F32
SSCS 4.34203	TRASH STOWAGE (BULK)	LOADS ARE N/A

FIG. 3

#	AID NAME	EMPTY WEIGHT	STOWAGE AID UTILIZATION FACTOR
1	A-DRAWER	607.0 lbs	SAUF = 70.0%
2	B-DRAWER	457.0 lbs	SAUF = 69.6%
3	B-BIN-36	169.0 lbs	SAUF = 52.9%
4	B-BIN-24	128.0 lbs	SAUF = 52.9%
5	Dry-BULK	42.6 lbs/sq-ft	SAUF = 90.0%
6	Chill-BULK	46.0 lbs/sq-ft	SAUF = 88.0%
7	Frozen-BULK	48.4 lbs/sq-ft	SAUF = 88.0%
8	C-RACK	890.7 lbs	SAUF = 57.4%
9	E-COUNTER	483.5 lbs	SAUF = 32.4%
10	F-BIN	166.0 lbs	SAUF = 46.5%
11	I-BIN	418.0 lbs	SAUF = 66.7%
12	J-BIN	198.0 lbs	SAUF = 64.9%
13	J-RACK-Aluminum	198.0 lbs	SAUF = 62.6%
14	J-RACK-Steel	553.0 lbs	SAUF = 62.6%
15	K-RACK-Aluminum	205.0 lbs	SAUF = 66.8%
16	K-RACK-Steel	594.0 lbs	SAUF = 66.8%
17	L-COUNTER	153.4 lbs	SAUF = 47.7%
18	M-RACK	1131.3 lbs	SAUF = 53.1%
19	MDS	452.4 lbs	SAUF = 70.0%
20	MDS-Small Version	401.9 lbs	SAUF = 70.0%
21	N-RACK	1314.0 lbs	SAUF = 43.7%
22	O-BIN	246.4 lbs	SAUF = 47.1%
23	R-RACK 4 shelf	290.0 lbs	SAUF = 75.0%
24	R-RACK 6 shelf	379.0 lbs	SAUF = 75.0%
25	S-BIN	97.0 lbs	SAUF = 47.2%
26	S-RACK 4 shelf	244.0 lbs	SAUF = 75.0%
27	S-RACK 6 shelf	310.0 lbs	SAUF = 75.0%
28	T-RACK	402.8 lbs	SAUF = 66.6%
29	PALLET- BULK	f(area, # strms)	SAUF = 90.0%
30	PALLET- BIN	f(area, # strms)	SAUF = 62.6%
31	ISLE-SAVER 3 shelf	621.5 lbs	SAUF = 60.0%
32	ISLE-SAVER 4 shelf	649.0 lbs	SAUF = 58.5%
33	USER DEFINED 1	User Input, lbs	SAUF= User Input, %
34	USER DEFINED 2	User Input, lbs	SAUF= User Input, %
35	USER DEFINED 3	User Input, lbs	SAUF= User Input, %

FIG. 4

# COMPARTMENT LENGTH TO COMPARTMENT WIDTH RATIO

	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
50	9.7	9.7	9.7	9.7	9.7	14.6	9.7	9.7	14.6	14.6
100	12.2	12.2	12.2	12.2	14.6	12.2	12.2	14.6	14.6	12.2
150	13.0	13.0	17.8	14.6	14.6	13.0	11.3	16.2	17.8	17.8
200	10.9	10.9	15.8	14.6	14.6	17.0	20.6	18.2	17.0	15.8
250	18.5	18.5	14.6	13.6	16.5	20.4	17.5	17.5	16.5	18.5
500	19.9	14.1	22.8	19.0	19.4	19.4	20.4	19.4	17.5	19.0
1000	14.6	20.2	20.4	20.6	21.6	23.1	21.1	21.4	22.1	21.6
1500	23.5	20.9	20.2	23.0	20.6	22.8	21.0	23.5	23.0	23.3
2000	20.8	21.7	23.2	22.7	22.8	24.4	21.9	23.4	23.4	23.4
2500	22.9	22.9	20.9	22.4	24.2	23.9	23.9	23.9	23.9	23.9
3000	23.2	23.2	23.6	25.0	24.0	24.0	24.0	24.0	24.0	24.0
3500	22.1	22.1	22.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2
4000	23.0	23.0	24.8	23.6	23.6	23.6	23.6	23.6	23.6	23.6

COMPARTMENT AREA (SQUARE FEET)

FIG. 5

COMPARTMENT UTILIZATION FACTOR (CUF)	The storeroom net volume, divided by the storeroom gross volume, times the stowage aid utilization factor, and converted to a percentage by multiplying by 100.
STOWAGE AID UTILIZATION FACTOR (SAUF)	The stowage aid's net volume, divided by the gross volume occupied by the stowage aid, times the packing factor, and converted to a percentage by multiplying by 100.
PACKING FACTOR	The statistical average of the ratio of the material net volume to the stowage capacity of a particular stowage aid, as surveyed to exist in naval ships (Usually developed and reported by FOSAC for use in the U.S. Navy).
USABLE DECK AREA	The net arrangeable deck area of a shipboard storeroom compartment, bounded by the ship's shell deck edge and vertical bulkheads, taking into account losses of area due to bulkhead stiffeners, piping, wireways, insulation and vent ducts.
MATERIAL NET VOLUME	The actual volume of the material to be stored, including packaging material if the packing material is required for proper stowage.
STOREROOM GROSS VOLUME	The volume of the compartment within the boundaries of vertical bulkheads and the deck edge of shell plating intersections, from the deck to the maximum allowable material stowage height (e.g., 6.5 feet maximum allowed for most systems).
STOREROOM NET VOLUME	The volume of the compartment available for the material to be stored and any required stowage aids and required clearances and aisles. Calculated as the product of the usable deck area and the stowage height.
STOWAGE AID	Any piece of equipment or fittings used for stowage, including bins, drawer and shelf units, lockers, modular drawer stowage cabinets, reels, shelving, clips, jackrods and portable or telescopic battens with grating.
STOWAGE AID CAPACITY	The usable stowage volume provided by a stowage aid, divided by the gross volume (the stowage aid's foot print times the stowage aid's height) of the stowage aid.
STOWAGE HEIGHT	The clear height to which stores are to be stacked. Usually defined as the 6 feet and 6 inches above the deck or deck grating (notable exception being for refrigerated storerooms, where the height is 6 feet and 0 inches above the grating). However, a minimum of 6 inches clear space is required above bulk material, and the stowage height must not incorporate this clearance. For cargo storerooms, the stowage height is the height that provides the required clear space of 6 inches above the bulk stowage material and that is not to be less than 6 feet and 3 inches, which is required for headroom for surface ship personnel.

FIG. 6

## KSW PALLET STOWAGE SYSTEM

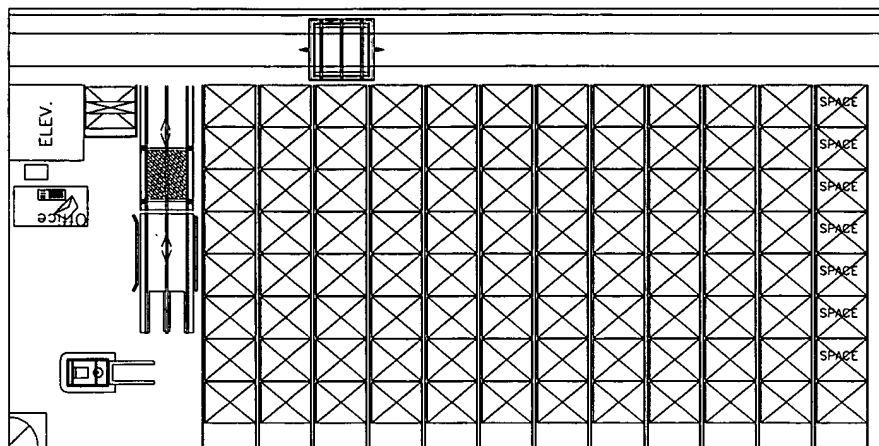


FIG. 7

## SPACESAVER STOWAGE SYSTEM

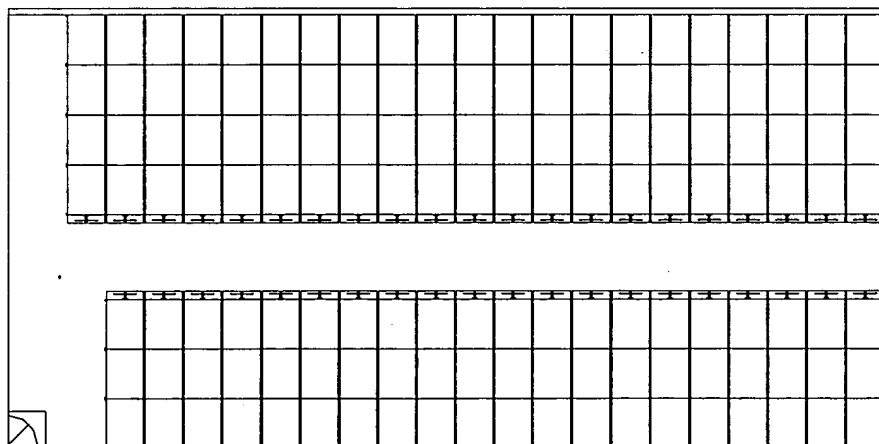


FIG. 8